What is claimed is:

1. A composite, comprising:

(a) a polytetrafluoroethylene portion having an etched surface; and

(b) a structural material portion bonded to said etched surface at an interface, said interface comprising a cured admixture of from about 10 to about 90 weight percent tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride terpolymer, from about 0.01 to about 1 weight percent polyethylene-oxide-modified silicone polymer coupling agent, and an oxygen-radical-containing copolymer, and having less than about 5 weight percent water, and;

wherein said structural material portion made of a material selected from the group consisting of polymer, metal, ceramic, leather, and wood; and

wherein said oxygen-radical-containing copolymer is an oxygen-radical-containing copolymer selected from the group consisting of epoxy polymer, phenoxy polymer, and hydroxylated diamine-diepoxide derivative copolymer.

2. The composite of Claim 1 wherein said tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride terpolymer has a melting temperature and said cured admixture is derived by:

(a) saturatively distributing an aqueous admixture of from about 10 to about 90 weight percent fluoropolymer aqueous emulsion and a remainder of oxygen-radical-containing copolymer aqueous solution onto said etched surface; and

(b) heating said etched surface and said aqueous admixture on said etched surface to a temperature of at least said melting temperature;

wherein said fluoropolymer aqueous emulsion has from about 20 to about 60 weight percent tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride emulsified terpolymer, a pH from about 6 to about 10, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and a viscosity from about 4 to about 12 Mega Pascal Seconds; and

wherein said oxygen-radical-containing copolymer aqueous solution has

(1) from about 20 to about 60 weight percent oxygen-radical-containing copolymer having a softening temperature of from about 25 to about 180 degrees Centigrade, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and an estimated equivalent molecular weight from about 100 to about 10,000 , wherein said oxygen-radical-containing copolymer is an oxygen-radical-containing copolymer selected from the group consisting of

epoxy polymer, phenoxy polymer, and hydroxylated diamine-diepoxide derivative copolymer, and

(2) from about 0.01 to about 1 weight percent polyethylene-oxide-modified silcone polymer coupling agent having a wax melting temperature of from about 25 to about 50 degrees Centigrade.

3. The composite of Claim 1 wherein said structural material portion comprises a polymer selected from the group consisting of polyester thermoplastic elastomer, polyamide thermoplastic elastomer, thermoplastic urethane elastomer, fluoroelastomer, ethylene acrylic rubber thermoplastic vulcanizate, acrylic acid ester rubber/polyacrylate rubber thermoplastic vulcanizate, silicone-thermoplastic vulcanizate, polyether-block co-polyamide polymer,ethylene-propylene-diamine monomer rubber / polypropylene thermoplastic vulcanizate, polyamide, polyester, polyolefin, polyphenylene-sulfide, polyether-ether ketone, polyamide-imide, polysulfone, thermoplastic urethane, acrylonitrile-butadiene-styrene, polyvinyl chloride, polymethylmethacrylate, polycarbonate, polybutene, cellulosic plastic, polyacrylate, polyacetal, and combinations thereof.

4. The composite of Claim 3 further comprising inert particulate admixed in said polymer, wherein said inert particulate is selected from the group consisting of calcium carbonate, carbon black, graphite, silica fume, kaolin, magnetizable ferrite powder, metal fiber, carbon nanotubes, carbon fiber, glass fiber, fiberglass fiber, microspheres, polyimide powder, molybdenum powder, brass powder, and combinations thereof.

5. The composite of Claim 1 wherein said metal is a metal selected from the group consisting of steel, carbon steel, stainless steel, and aluminum.

6. The composite of Claim 1 wherein said etched surface is prepared by an etching process selected from the group consisting of sodium-ammonia solution etching, sodium-naphthalene solution etching, plasma bombardment etching, electron-beam etching, and laser etching.

7. The composite of Claim 2 wherein said saturatively distributing comprises:

(1) coating said etched surface with said aqueous admixture to provide an aqueous admixture coating having from about 0.0005 to about 0.01 inches thickness; and

(2) pressurizing said aqueous admixture coating against said etched surface for at least 3 minutes at from about 0.5 to about 10 pounds per square inch pressure and from about 25 to about 100 degrees Centigrade temperature.

8. The composite of Claim 1 wherein said structural material portion is bonded to said etched surface by use on any process selected from the group consisting of calendaring, pultrusion, multilayer extrusion, and co-injection molding.

9. The composite of Claim 2 wherein said tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride terpolymer is from about 46.5 to about 51.5 weight percent of said fluoropolymer aqueous emulsion.

10. The composite of Claim 2 wherein said pH is from about 8 to about 9.

11. The composite of Claim 2 wherein said viscosity is from about 9 to about 10 Mega Pascal Seconds.

12. The composite of Claim 2 wherein said coupling agent is from about 0.05 to about 1.5 weight percent of said oxygen-radical-containing copolymer aqueous solution.

13. The composite of Claim 2 wherein said fluoropolymer aqueous emulsion is from about 20 to about 60 weight percent of said aqueous admixture.

14. The composite of Claim 1 wherein said tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride terpolymer is from about 20 to about 60 weight percent of said cured admixture.

15. The composite of Claim 2 wherein said fluoropolymer aqueous emulsion is about 50 weight percent of said aqueous admixture.

16. The composite of Claim 1 wherein said tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride terpolymer is about 50 weight percent of said cured admixture.

17. The composite of Claim 7 wherein said coating is about 0.0015 inches thick.

18. The composite of Claim 2 wherein said heating sustains said etched surface and said aqueous admixture on said etched surface at a temperature of at least 190 degrees Centigrade and at a pressure of at least 75 pounds per square inch for at least 10 minutes.

19. The composite of Claim 2 wherein said adjusting water further comprises vacuum evaporation of water from said aqueous admixture on said etched surface.

20. The composite of Claim 1 wherein said composite is a seal having a dynamic contact surface as one surface of said polytetrafluoroethylene portion.

21. The composite of Claim 1 wherein said composite is any of a laminate diaphragm in a diaphragm pump, a gasket, an o-ring, and a hose.

22. A composition, comprising an aqueous admixture of:

(a) from about 10 to about 90 weight percent fluoropolymer aqueous emulsion having from about 20 to about 60 weight percent tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride emulsified terpolymer, a pH from about 6 to about 10, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and a viscosity from about 4 to about 12 Mega Pascal Seconds; and

(b) oxygen-radical-containing copolymer aqueous solution in remainder, said oxygen-radical-containing copolymer aqueous solution having

(1) from about 20 to about 60 weight percent oxygen-radical-containing copolymer having a softening temperature of from about 25 to about 180 degrees Centigrade, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and an estimated equivalent molecular weight from about 100 to about 10,000 , wherein said oxygen-radical-containing copolymer is an oxygen-radical-containing copolymer selected from the group consisting of epoxy polymer, phenoxy polymer, and hydroxylated diamine-diepoxide derivative copolymer, and

(2) from about 0.01 to about 1 weight percent polyethylene-oxide-modified silcone polymer coupling agent having a wax melting temperature of from about 25 to about 50 degrees Centigrade.

23. The composition of Claim 22 wherein said tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride terpolymer is from about 46.5 to about 51.5 weight percent of said fluoropolymer aqueous emulsion.

24. The composition of Claim 22 wherein said pH is from about 8 to about 9.

25. The composition of Claim 22 wherein said viscosity is from about 9 to about 10 Mega Pascal Seconds.

26. The composition of Claim 22 wherein said coupling agent is from about 0.05 to about 1.5 weight percent of said oxygen-radical-containing copolymer aqueous solution.

27. The composition of Claim 22 wherein said fluoropolymer aqueous emulsion is from about 20 to about 60 weight percent of said aqueous admixture.

28. The composition of Claim 22 wherein said fluoropolymer aqueous emulsion is about 50 weight percent of said aqueous admixture.

29. A method for making a composition, comprising admixing

(a) fluoropolymer aqueous emulsion having from about 20 to about 60 weight percent tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride emulsified terpolymer, a pH from about 6 to about 10, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and a viscosity from about 4 to about 12 Mega Pascal Seconds; and

(b) oxygen-radical-containing copolymer aqueous solution, said oxygen-radical-containing copolymer aqueous solution having

(1) from about 20 to about 60 weight percent oxygen-radical-containing copolymer having a softening temperature of from about 25 to about 180 degrees Centigrade, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and an estimated equivalent molecular weight from about 100 to about 10,000 , wherein said oxygen-radical-containing copolymer is an oxygen-radical-containing copolymer selected from the group consisting of epoxy polymer, phenoxy polymer, and hydroxylated diamine-diepoxide derivative copolymer, and

(2) from about 0.01 to about 1 weight percent polyethylene-oxide-modified silcone polymer coupling agent having a wax melting temperature of from about 25 to about 50 degrees Centigrade;

wherein said fluoropolymer aqueous emulsion provides from about 10 to about 90 weight percent of said composition.

30. The method of Claim 29 wherein said tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride terpolymer is from about 46.5 to about 51.5 weight percent of said fluoropolymer aqueous emulsion.

31. The method of Claim 29 wherein said pH is from about 8 to about 9.

32. The method of Claim 29 wherein said viscosity is from about 9 to about 10 Mega Pascal Seconds.

33. The method of Claim 29 wherein said coupling agent is from about 0.05 to about 1.5 weight percent of said oxygen-radical-containing copolymer aqueous solution.

34. The method of Claim 29 wherein said fluoropolymer aqueous emulsion is from about 20 to about 60 weight percent of said aqueous admixture.

35. The method of Claim 29 wherein said fluoropolymer aqueous emulsion is about 50 weight percent of said aqueous admixture.

36. A method of making a composite, comprising:

(a) admixing an aqueous admixture of from about 10 to about 90 weight percent fluoropolymer aqueous emulsion and a remainder of oxygen-radical-containing copolymer aqueous solution;

(b) etching a surface of a polytetrafluoroethylene article to provide an etched surface;

(c) saturatively distributing said aqueous admixture onto said etched surface;

(d) positioning a structural material article against said aqueous admixture on said etched surface so that said aqueous admixture fluidly fills an interface between said structural material article and said etched surface, said structural material portion made of a material selected from the group consisting of polymer, metal, ceramic, leather, and wood; and

(e) curing said aqueous admixture in said interface to bond said structural material article to said etched surface;

wherein said fluoropolymer aqueous emulsion has from about 20 to about 60 weight percent tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride emulsified terpolymer, a pH from about 6 to about 10, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and a viscosity from about 4 to about 12 Mega Pascal Seconds; and

wherein said oxygen-radical-containing copolymer aqueous solution has

(1) from about 20 to about 60 weight percent oxygen-radical-containing copolymer having a softening temperature of from about 25 to about 180 degrees Centigrade, a specific gravity from

about 1.1 to about 1.5 grams per milliliter, and an estimated equivalent molecular weight from about 100 to about 10,000 , wherein said oxygen-radical-containing copolymer is an oxygen-radical-containing copolymer selected from the group consisting of epoxy polymer, phenoxy polymer, and hydroxylated diamine-diepoxide derivative copolymer, and

(2) from about 0.01 to about 1 weight percent polyethylene-oxide-modified silcone polymer coupling agent having a wax melting point of from about 25 to about 45 degrees Centigrade.

37. The method of Claim 36 wherein said tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride terpolymer has a melting temperature and said curing further comprises heating said etched surface and said aqueous admixture on said etched surface to a temperature of at least said melting temperature.

38. The method of Claim 36 wherein said structural material article comprises a polymer selected from the group consisting of polyester thermoplastic elastomer, polyamide thermoplastic elastomer, thermoplastic urethane elastomer, fluoroelastomer, ethylene acrylic rubber thermoplastic vulcanizate, acrylic acid ester rubber/polyacrylate rubber thermoplastic vulcanizate, silicone-thermoplastic vulcanizate, polyether-block co-polyamide polymer,ethylene-propylene-diamine monomer rubber / polypropylene thermoplastic vulcanizate, polyamide, polyester, polyolefin, polyphenylene-sulfide, polyether-ether ketone, polyamide-imide, polysulfone, thermoplastic urethane, acrylonitrile-butadiene-styrene, polyvinyl chloride, polymethylmethacrylate, polycarbonate, polybutene, cellulosic plastic, polyacrylate, polyacetal, and combinations thereof.

39. The method of Claim 38 further comprising inert particulate admixed in said polymer, wherein said inert particulate is selected from the group consisting of calcium carbonate, carbon black, graphite, silica fume, kaolin, magnetizable ferrite powder, metal fiber, carbon nanotubes, carbon fiber, glass fiber, fiberglass fiber, microspheres, polyimide powder, molybdenum sulfide powder, brass powder, and combinations thereof.

40. The method of Claim 36 wherein said metal is a metal selected from the group consisting of steel, carbon steel, stainless steel, and aluminum.

41. The method of Claim 36 wherein said etching comprises an etching process selected from the group consisting of sodium-ammonia solution etching, sodium-naphthalene solution etching, plasma bombardment etching, electron-beam etching, and laser etching.

42. The method of Claim 36 wherein said saturatively distributing comprises:

(1) coating said etched surface with said aqueous admixture to provide an aqueous admixture coating having from about 0.0005 to about 0.01 inches thickness; and

(2) pressurizing said aqueous admixture coating against said etched surface for at least 3 minutes at from about 0.5 to about 10 pounds per square inch pressure and from about 25 to about 100 degrees Centigrade temperature.

43. The method of Claim 36 wherein said positioning further comprises any process selected from the group consisting of calendaring, pultrusion, multilayer extrusion, and co-injection molding.

44. The method of Claim 36 wherein said tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride terpolymer is from about 46.5 to about 51.5 weight percent of said fluoropolymer aqueous emulsion.

45. The method of Claim 36 wherein said pH is from about 8 to about 9.

46. The method of Claim 36 wherein said viscosity is from about 9 to about 10 Mega Pascal Seconds.

47. The method of Claim 36 wherein said coupling agent is from about 0.05 to about 1.5 weight percent of said oxygen-radical-containing copolymer aqueous solution.

48. The method of Claim 36 wherein said fluoropolymer aqueous emulsion is from about 20 to about 60 weight percent of said aqueous admixture.

49. The method of Claim 36 wherein said fluoropolymer aqueous emulsion is about 50 weight percent of said aqueous admixture.

50. The method of Claim 42 wherein said coating is about 0.0015 inches thick.

51. The method of Claim 37 wherein said heating sustains said etched surface and said aqueous admixture on said etched surface at a temperature of at least 190 degrees Centigrade and at a pressure of at least 75 pounds per square inch for at least 10 minutes.

52. The method of Claim 36 wherein said adjusting water further comprises vacuum evaporation of water from said aqueous admixture on said etched surface.

53. The method of Claim 36 wherein said composite is a seal and said method further comprises machining a dynamic contact surface on said polytetrafluoroethylene article.

54. The method of Claim 36 wherein said composite is any of a laminate diaphragm in a diaphragm pump, a gasket, an o-ring, and a hose.

55. A composite made by a process, comprising:

(a) admixing an aqueous admixture of from about 10 to about 90 weight percent fluoropolymer aqueous emulsion and a remainder of oxygen-radical-containing copolymer aqueous solution;

(b) etching a surface of a polytetrafluoroethylene article to provide an etched surface;

(c) saturatively distributing said aqueous admixture onto said etched surface;

(d) positioning a structural material article against said aqueous admixture on said etched surface so that said aqueous admixture fluidly fills an interface between said structural material article and said etched surface, said structural material portion made of a material selected from the group consisting of polymer, metal, ceramic, leather, and wood; and

(e) curing said aqueous admixture in said interface to bond said structural material article to said etched surface;

wherein said fluoropolymer aqueous emulsion has from about 20 to about 60 weight percent tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride emulsified terpolymer, a pH from about 6 to about 10, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and a viscosity from about 4 to about 12 Mega Pascal Seconds; and

wherein said oxygen-radical-containing copolymer aqueous solution has

(1) from about 20 to about 60 weight percent oxygen-radical-containing copolymer having a softening temperature of from about 25 to about 180 degrees Centigrade, a specific gravity from about 1.1 to about 1.5 grams

per milliliter, and an estimated equivalent molecular weight from about 100 to about 10,000 , wherein said oxygen-radical-containing copolymer is an oxygen-radical-containing copolymer selected from the group consisting of epoxy polymer, phenoxy polymer, and hydroxylated diamine-diepoxide derivative copolymer, and

(2) from about 0.01 to about 1 weight percent polyethylene-oxide-modified silcone polymer coupling agent having a wax melting point of from about 25 to about 45 degrees Centigrade.

56. The composite of Claim 55 wherein said tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride terpolymer has a melting temperature and said curing further comprises heating said etched surface and said aqueous admixture on said etched surface to a temperature of at least said melting temperature.

57. The composite of Claim 55 wherein said structural material article comprises a polymer selected from the group consisting of polyester thermoplastic elastomer, polyamide thermoplastic elastomer, thermoplastic urethane elastomer, fluoroelastomer, ethylene acrylic rubber thermoplastic vulcanizate, acrylic acid ester rubber/polyacrylate rubber thermoplastic vulcanizate, silicone-thermoplastic vulcanizate, polyether-block co-polyamide polymer,ethylene-propylene-diamine monomer rubber / polypropylene thermoplastic vulcanizate, polyamide, polyester, polyolefin, polyphenylene-sulfide, polyether-ether ketone, polyamide-imide, polysulfone, thermoplastic urethane, acrylonitrile-butadiene-styrene, polyvinyl chloride, polymethylmethacrylate, polycarbonate, polybutene, cellulosic plastic, polyacrylate, polyacetal, and combinations thereof.

58. The composite of Claim 57 further comprising inert particulate admixed in said polymer, wherein said inert particulate is selected from the group consisting of calcium carbonate, carbon black, graphite, silica fume, kaolin, magnetizable ferrite powder, metal fiber, carbon nanotubes, carbon fiber, glass fiber, fiberglass fiber, microspheres, polyimide powder, molybdenum sulfide powder, brass powder, and combinations thereof.

59. The composite of Claim 55 wherein said metal is a metal selected from the group consisting of steel, carbon steel, stainless steel, and aluminum.

60. The composite of Claim 55 wherein said etching comprises an etching process selected from the group consisting of sodium-ammonia solution etching, sodium-naphthalene solution etching, plasma bombardment etching, electron-beam etching, and laser etching.

61. The composite of Claim 55 wherein said saturatively distributing comprises:

(1) coating said etched surface with said aqueous admixture to provide an aqueous admixture coating having from about 0.0005 to about 0.01 inches thickness; and

(2) pressurizing said aqueous admixture coating against said etched surface for at least 3 minutes at from about 0.5 to about 10 pounds per square inch pressure and from about 25 to about 100 degrees Centigrade temperature.

62. The composite of Claim 55 wherein said positioning further comprises any process selected from the group consisting of calendaring, pultrusion, multilayer extrusion, and co-injection molding.

63. The composite of Claim 55 wherein said tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride terpolymer is from about 46.5 to about 51.5 weight percent of said fluoropolymer aqueous emulsion.

64. The composite of Claim 55 wherein said pH is from about 8 to about 9.

65. The composite of Claim 55 wherein said viscosity is from about 9 to about 10 Mega Pascal Seconds.

66. The composite of Claim 55 wherein said coupling agent is from about 0.05 to about 1.5 weight percent of said oxygen-radical-containing copolymer aqueous solution.

67. The composite of Claim 55 wherein said fluoropolymer aqueous emulsion is from about 20 to about 60 weight percent of said aqueous admixture.

68. The composite of Claim 55 wherein said fluoropolymer aqueous emulsion is about 50 weight percent of said aqueous admixture.

69. The composite of Claim 61 wherein said coating is about 0.0015 inches thick.

70. The composite of Claim 56 wherein said heating sustains said etched surface and said aqueous admixture on said etched surface at a temperature of at least 190 degrees Centigrade and at a pressure of at least 75 pounds per square inch for at least 10 minutes.

71. The composite of Claim 55 wherein said adjusting water further comprises vacuum evaporation of water from said aqueous admixture on said etched surface.

72. The composite of Claim 55 wherein said composite is a seal and said process further comprises machining a dynamic contact surface on said polytetrafluoroethylene article.

73. The composite of Claim 55 wherein said composite is any of a laminate diaphragm in a diaphragm pump, a gasket, an o-ring, and a hose.

74. A seal made by a process, comprising:

(a) admixing an aqueous admixture of from about 10 to about 90 weight percent fluoropolymer aqueous emulsion and a remainder of oxygen-radical-containing copolymer aqueous solution;

(b) etching a surface of a polytetrafluoroethylene article to provide an etched surface;

(c) saturatively distributing said aqueous admixture onto said etched surface;

(d) positioning a structural material article against said aqueous admixture on said etched surface so that said aqueous admixture fluidly fills an interface between said structural material article and said etched surface, said structural material portion made of a material selected from the group consisting of polymer, metal, ceramic, leather, and wood;

(e) curing said aqueous admixture in said interface to bond said structural material article to said etched surface; and

(f) machining a dynamic contact surface on said polytetrafluoroethylene article to complete said seal;

wherein said fluoropolymer aqueous emulsion has from about 20 to about 60 weight percent tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride emulsified terpolymer, a pH from about 6 to about 10, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and a viscosity from about 4 to about 12 Mega Pascal Seconds; and

wherein said oxygen-radical-containing copolymer aqueous solution has

(1) from about 20 to about 60 weight percent oxygen-radical-containing copolymer having a softening temperature of from about 25 to about 180 degrees Centigrade, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and an estimated equivalent molecular weight from about 100 to about 10,000 , wherein said oxygen-radical-containing copolymer is an oxygen-radical-containing copolymer selected from the group consisting of epoxy polymer, phenoxy polymer, and hydroxylated diamine-diepoxide derivative copolymer, and

(2) from about 0.01 to about 1 weight percent polyethylene-oxide-modified silcone polymer coupling agent having a wax melting point of from about 25 to about 45 degrees Centigrade.

75. A diaphragm pump diaphragm made by a process, comprising:

(a) admixing an aqueous admixture of from about 10 to about 90 weight percent fluoropolymer aqueous emulsion and a remainder of oxygen-radical-containing copolymer aqueous solution;

(b) etching a surface of a polytetrafluoroethylene sheet to provide an etched surface;

(c) saturatively distributing said aqueous admixture onto said etched surface;

(d) positioning a polymeric sheet against said aqueous admixture on said etched surface so that said aqueous admixture fluidly fills an interface between said polymeric sheet and said etched surface; and

(e) curing said aqueous admixture in said interface to bond said polymeric sheet to said etched surface;

wherein said fluoropolymer aqueous emulsion has from about 20 to about 60 weight percent tetrafluoroethylene-hexafluoropropylene-vinylidene fluoride emulsified terpolymer, a pH from about 6 to about 10, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and a viscosity from about 4 to about 12 Mega Pascal Seconds; and

wherein said oxygen-radical-containing copolymer aqueous solution has

(1) from about 20 to about 60 weight percent oxygen-radical-containing copolymer having a softening temperature of from about 25 to about 180 degrees Centigrade, a specific gravity from about 1.1 to about 1.5 grams per milliliter, and an estimated equivalent molecular weight from about 100 to about 10,000 , wherein said oxygen-radical-containing copolymer

is an oxygen-radical-containing copolymer selected from the group consisting of epoxy polymer, phenoxy polymer, and hydroxylated diamine-diepoxide derivative copolymer, and

(2) from about 0.01 to about 1 weight percent polyethylene-oxide-modified silcone polymer coupling agent having a wax melting point of from about 25 to about 45 degrees Centigrade.

76. A method for etching an article made of polytetrafluoroethylene, comprising:

(a) generating a bombardment beam; and

(b) etching a surface of said article with said bombardment beam, said bombardment beam energizing said surface with sufficient energy for dislodging a plurality of fluoride atoms from said polytetrafluoroethylene of said surface and thereby generating residual fluoroethylenic free radical moieties in polytetrafluoroethylene polymeric chains of said surface upon conclusion of said etching.

77. The method of Claim 76 wherein said generating generates a bombardment beam selected from the group of bombardment beams of a plasma beam, an electron-beam, and a laser beam.